KwaZulu-Natal Income Dynamics Study (KIDS) 1993-1998:

A longitudinal household data set for South African policy analysis

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1   INTRODUCTION

In common with many countries, the inability of many in South Africa to satisfy their essential needs while a minority enjoys extreme prosperity stems from diverse sources. However, it is widely acknowledged that the specificity of the South Africa situation has been the role played by institutionalised discrimination. Four decades of apartheid legislation built on the earlier policies of the Colonial and Union government directed at the extraction of cheap labour. The result was a process of state-driven underdevelopment that encompassed dispossession and exclusion for the majority of South Africans. As such, apartheid, and the legislation and institutions through which this ideology was implemented operated to produce persistent poverty and extreme inequality. It is not surprising, therefore, that narrowing inequality, breaking down the barriers that hamper participation in the economy and reducing poverty have been a consistent theme of the democratic South African governments since 1994.

An important adjunct of apartheid has been the absence of credible and comprehensive data on which policy, such as poverty reduction strategies, can be grounded. The previous regime had little interest in collecting information of this nature and, indeed, often suppressed data that depicted conditions in the former bantustan areas. For example, between 1976 and 1994, official statistics excluded the 'TBVC states', the homelands of Transkei, Bophuthatswana, Venda and Ciskei that were given nominal independence by the South African government. This automatically excluded a large proportion of the poor from official statistics. While surveys continued to be undertaken in these areas, the commissioning and release of both reports and data were often subject to the whims of the bantustan governments. Various

studies and data 'panel-beating' exercises, such as those undertaken by the Development

Bank of Southern Africa (DBSA, 1987a, 1987b, 1991, 1994), tried to fill this information

gap, but it was not until the 1993 Project for Statistics on Living Standards and Development

(PSLSD) that a comprehensive household data base for development was created.

Despite its usefulness, a cross-sectional study such as the PSLSD is unable to address a

variety of questions, particularly those concerning dynamic processes, important to policy

researchers and practitioners. The primary objective of this article is to introduce a new

longitudinal household survey based on the PSLSD which begins to fill this gap.[1] We detail

some of the pros and cons of using this type of data base compared to the more commonly

available cross-sectional data. Some initial findings highlighting the various uses of the data

are presented. Lastly, we describe how to obtain the data.

2   PSLSD 1993

The first South African national household survey, the PSLSD was undertaken in the last half

of 1993 by a consortium of South African survey groups and universities under the leadership

of the South African Labour and Development Research Unit (SALDRU) at the University of

Cape Town with financial and technical support from the World Bank and the governments

of Denmark, The Netherlands, and Norway (PSLSD 1994).[2]

> The principal purpose of the survey … was to collect hard statistical information about the
> conditions under which South Africans live in order to provide policy makers with the data
> required for planning strategies to implement such goals as those outlined in the Government
> of National Unity's Reconstruction and Development Programme (RDP). (PSLSD 1994: page
> i)

Similar to a Living Standards Measurement Survey (Grosh and Munoz 1996; Deaton 1997),

the main instrument was a comprehensive household survey collecting a broad array of

information on the socio-economic condition of households. Among other things, it includes

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[1] The only other longitudinal household survey in South Africa of which the authors are aware is a small scale
one in Nkandla (Ardington, 1995).

sections on household demographics, household environment, education, food and non-food expenditures, remittances, employment and income, agricultural activities, health and anthropometry (weights and heights of children aged six and under). In addition to the household questionnaire, a community questionnaire was administered in each cluster of the sample to collect information common to households in an area such as school availability, health care facilities, and prices for various commodities.

The 1993 sample was selected using a two-stage self-weighting design. In the first stage, clusters were chosen proportional to size from census enumerator subdistricts (ESDs) or approximate equivalents where not available. In the second stage, all households in each chosen cluster were enumerated and then a random sample of them selected (see PSLSD 1994 for further details).

An important component of the design, as with any household survey, was the definition of a household. To account for the complexity of the South African situation with its history of residential restrictions and migrant labour, a two tiered definition for household members, resident or non-resident, was formulated based on time spent in residence.[3] Only limited information was collected from non-resident household members.

The process of collecting these data and their subsequent analysis have been immensely useful in both the capacity strengthening of the South African policy research community and ultimately in guiding South African policies since the first national elections. A partial list of

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[2] PSLSD has also been referred to as the South African Integrated Household Survey (SAIHS), the South African Living Standards Measurement Survey (LSMS), and the SALDRU survey.

[3] According to PSLSD (1994), *resident household members*, were defined as i) those who had lived "under this roof for more than 15 days of the last 30 days *and* (ii) when they are together they share food from a common source (i.e., they cook and eat together); *and* (iii) contribute to or share in, a common resource pool (i.e., they contribute to the household through wages and salaries or other cash and in-kind income or they may be benefiting from this income but not contributing to it, e.g., children, and other non-economically active people in the household)." The household was also defined to include *non-resident members* who were those that satisfied conditions ii) and iii) but who needed only to have lived "under this 'roof' or within the same compound/homestead/stand at least 15 days out of the past year." Only information pertaining to the household roster was collected for these members (age, gender, relationship to head, education and so forth).

research by South Africans using the data includes studies focusing on the poverty and inequality (PIR, 1998), the incidence and distribution of poverty (Leibbrandt and Woolard, 1999), the components of income inequality (Liebbrandt, Woolard, and Woolard, 1997), new conceptualisations of poverty based on asset holdings (Carter and May, 1999a), employment and unemployment (Klasen and Woolard, 1999), and perceptions of well-being (Moller and Jackson, 1997). Through the above and other research, the PSLSD has had an important role in guiding policy; for example, the allocation of state revenue between South Africa's nine provinces has drawn extensively on the data as have targeted poverty programmes such as the Community Based Public Works Programme (PIR, 1998). As with all such surveys of this magnitude, however, PSLSD is not without its problems and researchers must be aware of and acknowledge these (see, for example, Standing, Sender, and Weeks, 1996).

Having been made available to the international policy research community, researchers further afield have also analysed the PSLSD. As with the research mentioned above, this work has helped bring issues of importance in South Africa to a wider audience. Not only does research on South Africa inform about South Africa, but it also benefits international development efforts more generally. A partial list of research emanating from abroad includes examinations of the old age pension scheme (Case and Deaton, 1998), the development of a 'deprivation index' (Klasen, 1997), fertility (Thomas, 1996), returns to education (Moll, 1998), and the impact of sectoral output changes on aggregate poverty measures (Khan, 1999).

On its own, the 1993 survey is then an example of a cross-sectional survey - a one-time representative survey - and continues to serve as a benchmark for such studies in South Africa. However, there are important limits to the policy research questions that can satisfactorily be dealt with using such data.

3 CROSS-SECTIONAL VERSUS LONGITUDINAL DATA

Despite the dissatisfaction sometimes expressed about the pace of change in South Africa, it is clear that South Africa has undergone a dramatic economic, political and social transformation. Therefore, with increasing urgency policy makers are keen to learn how South Africans have coped with these various changes, something the PSLSD survey alone cannot do. One way to learn about how South Africans are faring is to carry out another representative household survey on a new sample (i.e., a new cross-sectional survey). Provided the sample frame is current, this type of survey has the desirable property that it is representative of the overall population at the time of the survey. Current representativeness is especially important in a country whose population is growing and whose people are migrating, as appears to be the case in South Africa in recent years. This approach, referred to as repeated cross-sectional surveys, is adopted by Statistics South Africa (Stats SA) in their annual October Household Surveys (OHS) and much has been learned from these surveys.

Budlender (1999) provides a useful update of South Africa's poverty profile based on the 1995 OHS and five-yearly Income and Expenditure Survey (IES) conducted in same year. Leibbrandt and Woolard (1999) use two cross sections (PSLSD and 1995 Income and Expenditure Survey) to compare different measures of poverty within and across time. Klasen and Woolard use several cross-sectional surveys to assess trends in unemployment in the 1990s. By design, the samples used in these studies are representative "snap-shots" of their respective time periods. Therefore, they can be used to analyse changes over time for indicators such as rates of poverty for the general population.

Cross-sectional surveys cannot, however, answer a number of important dynamic questions. For example, while they can tell us whether poverty rates are decreasing, increasing or holding level, they cannot tell us about the fate of individual households over the period.

Suppose cross-sectional surveys at two points in time reveal that the poverty rate is the same in each period. This could be the result of the same households having been in poverty in 1993 and 1998. Alternatively, it may be that some households exited poverty over the period, while an equal number entered. Such distinctions, missed by cross-sectional surveys, might be very important in determining an effective policy response which may differ for chronic (the first case) versus transitory (the latter) poverty (Chaudhuri and Ravallion, 1994).

To better understand what is happening to individual households over time, or the dynamics of their situation, a different type of survey is required in which *the same* households interviewed in first period are re-interviewed in the subsequent survey. Typically referred to as longitudinal or panel surveys, with this sort of information one can determine whether the same or different households are in poverty in the two periods and an examination of the processes underlying these transitions can be made. Several well-known panel data sets exist which have been used to analyse a range of issues. Selected examples include the determinants of income mobility using the the Cote d'Ivoire Living Standards Survey (Grooteart and Kanbur, 1995), access to rural assets using the International Crops Research Institute Semi-Arid Tropics Village Level Studies in India (Gaiha and Deolalikar, 1993) and the influence of family history on children's well-being using the Panel Study of Income Dynamics in the United States of America (Brooks-Gunn et al, 1993). Baulch and Hoddinott, (1999) provide a useful review of further examples.

In sum, an important advantage of longitudinal surveys is that they allow us to analyse the dynamic behaviour of individual households, something not possible with standard cross-sectional surveys.

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A second advantage is that in many econometric analyses, longitudinal data enable us enable us to control for unobserved, time-invariant characteristics of households that may bias efforts to estimate causal relationships using cross-sectional data. For example, rarely do we observe or measure in a survey a family's preferences and priorities for educating their children. It is quite likely that families that put a high priority on education will work extra hard to obtain income needed to pay school fees. However, if we use cross-sectional data in an effort to discover the impact that family income has on education, we will likely obtain biased results because the families that are observed with the highest income may also be those who prioritise education the most. Estimates derived from such data will thus tend to overstate the impact that income transfers would have on educational decisions of families that give only an average priority to education. In contrast, with longitudinal data, panel data methods can be used to control for non-time varying preferences and other family characteristics and thereby obtain unbiased estimates of the impact of income on education.[4]

<<I grabbed a sentence and moved into footnote 4. Slight rewrite of sentence below>>

Despite these advantages, it must be stressed that unlike cross-sectional surveys that are always representative samples for their particular point in tme, longitudinal surveys, including the one described below, cease to be representative of the overall population after their first survey round. The representativeness of subsequent rounds is diminished further in rapidly changing countries and due to the sample attrition that inevitably occurs over time.

4   KIDS 1993-1998

<<moved some of text up to prefatory part of section 4>>With the aim of addressing research questions concerning the dynamics of poverty in South Africa, households surveyed by the

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[4] This latter advantage must be balanced with an associated disadvantage that many of estimators that take advantage of this capacity of panel data to control for unobserved characteristics are quite sensitive to measurement error.

PSLSD in KwaZulu-Natal province were re-surveyed from March to June, 1998 by the KwaZulu-Natal Income Dynamics Survey (KIDS). The re-survey was directed by a research consortium including the University of Natal, the University of Wisconsin, and the International Food Policy Research Institute. The choice of KwaZulu-Natal was in part the result of practical considerations including a confluence of research interests, resources, and the feasibility of locating the households interviewed in 1993.

In terms of population, KwaZulu-Natal is now South Africa's largest province containing 1/5 of a population of approximately 40 million. Though not the poorest province, it is relatively poor despite being relatively urban (42 percent) compared to provinces such as the Eastern Cape (37 percent) and Northern Province (11 percent). It is ethnically diverse: 76 percent of the population are African, 14 percent Indian, 7 percent white and 3 percent coloured. During the mid 1980s and again in the early 1990s there was substantial political unrest and violence in KwaZulu-Natal. Indeed, as a result of political violence and unrest, the first democratic local elections were not held until 1996, a year later than the rest of the country. On balance then, while KwaZulu-Natal should not be considered a typical or representative province, many of the underlying social and economic conditions are similar to those found in other provinces in which a substantial proportion of the population reside in the former homeland areas.

4.1   Description of KIDS 1998

In 1993, the KwaZulu-Natal portion of the PSLSD sample was representative at the province level, conditional on the accuracy of the 1991 census and other information used as the sampling frame, and contained 1558 households of all races. It was decided however, not to re-survey white and coloured households in 1998. While there were minor advantages to retaining these groups, such as the maintenance of overall sample size and the value of

sampling all ethnic groups in the province, in fact the sample size of these two sets of households was small (112 white and 53 coloured) precluding comparative ethnic analyses. Moreover the households in these groups are entirely located in a small number of clusters (due to the general lack of spatial integration of the population), which appear to be non-representative at the ethnic group level.

To ensure comparability, the 1998 household questionnaire largely followed the 1993 version, though there were some important changes. One of these was a greater focus on individual (as opposed to household) ownership of assets and control over their use so that gender-differentiated analysis is possible. A second underlying change was an expanded emphasis on the set of individuals not living in the household but economically linked to it. Finally, four new sections were added including economic shocks (both positive and negative), social capital (including group membership, kin networks, civic engagement, and trust), assets brought to marriage, and household decision making. The household questionnaire was necessarily quite involved and to ensure data collection accuracy, survey enumerators were trained for over two full weeks including practice interviewing on non-sample households. In the field, the questionnaire took close to three hours on average to complete, often requiring repeat visits in order to overcome respondent fatigue. To the extent possible, the new sections on economic shocks and social capital were replicated in 69 community level surveys.

Given the various purposes for the study (e.g., income generation, child health, etc.), the identification of "main" decision-makers within households was very important to enable the collection of longitudinal data on them. In 1993, PSLSD recorded a head for each household. The head could be either a resident or a non-resident member of the household and was simply that person designated by the survey respondent to be the household head. The 1993 enumerator training manual offers no additional guidance or criteria for this designation,

however. While in many instances it might be correct to assume that this "self-declared household head" corresponds to a main decision-maker, given the cultural diversity and complexity of households in South Africa, this may not always be accurate. For example, in three generation households, the survey respondent might declare the eldest the head but an employed middle aged child is really the primary decision-maker. To capture some of these complexities, we felt an expansion on the self-declared concept was necessary. This was done in an ex-ante fashion, through analysis of the 1993 data, and ex-post during the 1998 survey.

We call these individuals likely to be key decision makers "Core" persons. A household member was designated ex-ante as a Core person if he/she satisfied *any* of the following criteria:

1) A self-declared head of household (from 1993)

2) Spouse/partner of self-declared head of household (from 1993)

3) Lived in a three generation household *and all of the following were true*:

   - Child, child-in-law, or niece/nephew of self-declared head

   - At least 30 years old

   - Have at least one child living in household

4) Spouse/partner of person satisfying criterion (3)

Therefore all heads of households and spouses of heads are automatically included and in some three generation households adult children are included.

Prior to beginning fieldwork, we identified a list of the Core persons in the household (using the criteria above), whom we would target for additional information and tracking purposes. This designation was preprinted on the household roster. We believe this methodology

allowed us to miss fewer key decision makers in the household than if we had focused only on the self-declared heads.[5]

Another important aspect of the 1998 re-survey is that when possible we tracked, followed, and re-interviewed households who had moved. While the tracking procedures were somewhat more involved (see KIDS 1998 field worker training manual for details), the main elements were that Core persons were to be followed if they had moved and were no longer household members.

The combination of Core persons, of which there were often more than one in an original 1993 household, and tracking movers meant that it was possible for original households to split and for the split-offs to remain in the sample. In the field, for 37 original 1993 households in the sample, two (or more) interviews were completed in 1998. As a result, it is possible to analyse the sample as a panel of households (ignoring or possibly recombining the split-off households) or as one of Core persons.

Of course, as a longitudinal survey, the issues discussed in section 3 are relevant for KIDS. Thus it would not be proper to treat the 1998 observations in KIDS as a representative sample of households in 1998. In particular, it is likely to necessarily under-represent "younger" households formed since the first survey.

4.2 Attrition

A prior question for any analysis using longitudinal data is the extent and nature of sample attrition. In theory, three factors underlie the level of attrition in a survey: the mobility of the target population, the success with which those who move are followed and interviewed, and

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[5] In addition, guidelines were provided for designating new core persons to avoid missing other key decision makers in the household. The questionnaire and field worker manual for the KIDS study are provided in the web-site provided in Section 6 below.

the number of refusals. In practice, there is also the possibility of problems or errors in the field work (both in earlier rounds and in the current one). Below we describe the protocols we put in place to minimise attrition in the 1998 re-survey along with the results of our efforts at the household level (they are quite similar at the Core person level).

The 1993 (and thus 1998 target) sample included 1389 households[6], (215 Indian and 1174 African, see Table 1). Interview teams first went to the original location of a 1993 household. If it was learned that the household had moved, the team was instructed to get new location information. They sought an address from other family, neighbours, schools, employers, etc. If a new address was found, and was sufficiently detailed, a team (later) followed the household. Sixty-three households were followed successfully using this protocol.[7] Of the target sample, 1178 households (85%) were successfully re-interviewed. For comparison, the LSMS Cote d'Ivoire panel survey in the late 1980s had re-survey rates under 90 percent after only one year (Grootaert and Kanbur, 1995) while the Peruvian (Lima) LSMS retained less than 60 percent of the original sample after five years (Glewwe and Hall, 1998). The second wave of the Indonesian Family Life Survey was more successful, re-interviewing over 93 percent of the sample after four years (Thomas, Frankenberg, and Smith 1999). Given the span of time and the mobility of the South African population, a re-survey rate of 85 percent seems quite good.

TABLE ONE ABOUT HERE

In most surveys of this type in developing countries, refusal rates are low. This is true in our survey: only eleven re-contacted households refused an interview. Many surveys in developing countries do not attempt to track movers; had we followed that strategy we would

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[6]This discussion excludes four households all of whose members died prior to the 1998 re-survey.

[7] A small number of households moved out of KwaZulu-Natal; a few of these were followed but only one successfully interviewed.

have re-interviewed only 80% of the target households. Put another way, our tracking procedures yielded a 25% reduction in the level of attrition between the surveys.

Re-interview rates were higher in urban areas, where 90% of the target households were re-contacted. In large metropolitan areas, a sub-set of the urban sample which are characterised by more permanent housing structures and street addresses, re-interview rates were highest (not shown). We were less successful in re-interviewing Indian households over 20% of whom had moved between the survey rounds.

For more than 1/3 of the households not re-interviewed, information collected verified the household had moved but was not detailed enough to allow tracking to a new residence. For the remaining households, however, there was simply no trace, i.e., no one approached in the community recognised the name of any household members when presented with the 1993 household roster. Our analysis shows that it is important to distinguish between these two groups, those who are known to have moved and those who seemingly left no trace. <<Why is it important??>>

5   DYNAMIC MEASUREMENT OF POVERTY

While mindful of the problems associated with money-metric measures of poverty distinguishing levels of transient (sometimes poor) versus chronic poverty (consistently poor) over this period in South Africa is perhaps the most immediate use of longitudinal data such as the KIDS data. Transition matrices, depicting the position of households (interviewed in both years) in the income distribution over time, are a simple but powerful way to represent movement in and out of poverty[8].

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[8] Examples include Grootaert and Kanbur (1995) in Cote d'Ivoire and Glewwe and Hall (1998) in Peru. Chaudhuri and Ravallion (1994) is an example of an alternative approach using classification matrices.

A transition matrix for KwaZulu-Natal is depicted in Table 2 using the KIDS data (Carter and May, 1999b). The table is based on scaled per capita monthly expenditure figures with 1998 expenditures deflated using a community specific price index.[9] Total monthly expenditure was used instead of measured income on the grounds that it better represents permanent income than do income flows over a short recall period. The scaling calculates adult equivalents using a simple rule weighting children 15 and under by ½ and assuming modest economies of scale in household production. [10]

Based on their scaled per-capita income, households are placed in different income groups based on their position relative to a monetised poverty line. This poverty line is based on scaling IPR's (1993) poverty datum line which is derived on an estimate of minimum household consumption. [11] The resulting poverty line income-based measure is R237 (1993 Rand) per-adult equivalent per-month.

TABLE TWO ABOUT HERE

The basic mobility information is presented in the form of a percentage of each 1993 expenditure class (given by rows in the table) that was observed in each 1998 expenditure class (the columns of the table). Note that these classes are defined in terms of absolute

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[9] The price index is based on a set of 12 basic commodities. For each commodity, prices were measured at the community level at both informal and formal shopping places (to the extent that both were available). A simple average of the formal and informal prices was used to create the index. The analysis looks broadly the same when the national CPI is used in place of the community indices.

[10] Monetary measures of well-being are standardized or scaled in order to account for the fact that large households need more income than do small households to reach a similar level of well-being, that adults need more food and other commodities then do children, and that there are some economies of scale in household production. A simple scaling was defined such that the number of adult equivalents (ADEQs) in each household is defined as:

$$ADEQ = (A + 0.5*C)^{0.9}.$$

where A is the number of resident adult (older then 15 years of age) household members, C the number of children, and 0.9 is the scaling parameter which captures modest increasing returns in the creation of a living standard. Dividing household income or expenditure by ADEQ yields scaled per-capita measures.

[11] The R237 poverty line results from applying this scaling to the IPR's (1993) reference household of 4 adults and 2 children requiring a minimum expenditure of R723 per-month to achieve a subsistence living standard. May *et al.* (1995) detail the weaknesses of the IPR-based poverty line.

income levels, as opposed to percentiles of an income distribution that by definition will always contain a fixed percentage of the population. The main diagonal elements of the matrix are printed in bold and show the percentage of households in each row that did not change their position over the 1993 to 1998 period. With the exception of the best-off group in 1993, none of the main diagonal elements exceed 50 percent, signalling substantial mobility among expenditure classes.[12]

Focusing solely on those households that were below the scaled IPR poverty line in 1993, it can be seen that 2/3 of them remained below the poverty line in 1998; in other words, 2/3 of the poor households are persistently or chronically poor. The other third of households below poverty in 1993 had exited poverty in 1998; these are part of those we consider transitorily poor. Looking at the next two expenditure classes (those that had 1993 expenditures between one and one and a half times the IPR poverty line), we see that while about one third of them had moved up to higher categories in 1998, while nearly one half had fallen below the IPR poverty line. These households entering poverty make up another portion of the transitorily poor. It appears that not only were those in poverty in 1993 at high risk of remaining there (about 2/3 did), but also those just above the poverty line were at substantial risk of falling back into poverty (about ½ did). As has been learnt elsewhere in the world, beyond those who are chronically poor, the impoverished also consist of a large group of households who cycle in and out of poverty (Bane and Ellwood, 1986, Ruggles and Williams, 1989).

Understanding the forces behind this mobility can be approached in a number of ways. As n example, following the emerging literature in economics, Maluccio, Haddad, and May (1999) find that while the 'social capital' of households as proxied by group membership, yielded no economic return in 1993, it yielded substantial returns in 1998. This pattern was also found for education, although the latter had an impact much larger in magnitude. The structural and

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[12] The stability of the best-off group is in part an artifact of the it being an open-ended category.

other changes in the South African economy appear to be changing the returns to various factors, possibly indicating greater levels of efficiency and perhaps allowing some households the opportunity to escape from poverty.

6   ACCESSING KIDS 1993-1998

The KIDS 1993-1998 data base is scheduled for general release in early 2000. Since collection in mid 1998, the data have been extensively checked and organised. This is a very time consuming task as literally thousands of checks were carried out to ensure consistency. When inconsistencies arose the original questionnaires were consulted and appropriate action, if any, taken. Not all problems could be resolved in this fashion however, both because some may have been missed and because the original questionnaires were indeed in error. The latter categories are coded in a fashion to make them evident to researchers. To simplify work with the panel data set, we are releasing the 1993 and 1998 data, for KwaZulu-Natal together. The 1993 information includes the original PSLSD data for KwaZulu-Natal only, with a small number of corrections based on a re-examination of some of the original questionnaires, the 1993 questionnaire and a coding book. Additional information can be obtained from the World Bank (http://www.worldbank.org/html/prdph/lsms).

The 1998 materials include the complete KIDS data set, the 1998 annotated questionnaires, a coding book, a set of Stata programs used to calculate income and expenditures, and a copy of the field worker manual. These can be obtained by contacting the Population and Poverty Studies Programme at the School of Development Studies, University of Natal (http://www.nu.ac.za/csds/research/kidsdata)

7   CONCLUSION

As a research endeavour, the KIDS project addresses one of the most vexing and important problems confronting contemporary South Africa: understanding the forces and mechanisms

which contribute to the perpetuation of apartheid's legacy of poverty and inequality. In time, the project permits the development of a dynamic poverty measure that captures the important notions of persistent poverty and capabilities failure conceptualised by Amartya Sen. Econometric analysis of panel data will permit identification of those household's full asset or endowment bundles from which no escape from poverty is possible and which map into dynamically persistent poverty. This analysis will then permit the calculation of a suite of dynamic poverty measures (defined in terms of assets and dynamic capabilities) as well as the identification of the policies that would be required to relieve persistent poverty.

However, as the research summarised above begins to illustrate, the KIDS data base is a potentially rich resource suitable to a wide range of research and policy questions. As with the original PSLSD study, it is to be hoped that the data will serve as a building block in redressing the inherited paucity of information available for policy making in South Africa.

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Table 1: Attrition Rates Achieved by the KIDS Survey (% of column)

Status	African (Non-Urban)	African (Urban)	Indian (All)	Total
Located and interviewed	747 84.7%	263 89.5%	168 78.1%	1178 84.7%
Moved, and could not be located	57 6.5%	13 4.4%	18 8.4%	88 6.3%
Not known in the area	78 8.8%	18 6.1%	29 13.5%	125 9.0%
Total	882	294	215	1391

Table 2: Poverty Transition Matrix 1993-1998

(% of Row, Mean expenditures in 1993 and 1998 in parentheses)

	1998 Scaled Per Capita Expenditure Classes (in 1993 Rand)						Number of Hhds
	< 0.5 PL	< PL	< 1.25 PL	< 1.5 * PL	<2.5 * PL	> 2.5 * PL	
< 0.5 * PL	**16.7%** ('93 - R80.60) ('98 – R84.90)	48.5% ('93 – R89.60) ('98 – R179.40)	7.6% ('93 - R80.10) ('98 – R271.90)	7.6% ('93 – R64.40) ('98 – R315.20)	11.0% ('93 - R100.60) ('98 – R427.20)	2.0% ('93 – R102.60) ('98 – R721.50)	66
< PL	17.5% ('93 – R180.60) ('98 – R92.10)	**48.5%** ('93 – R181.40) ('98 – R172.20)	8.8% ('93 – R186.40) ('98 – R265.80)	5.8% ('93 – R175.80) ('98 – R336.50)	16.7% ('93 – R192.90) R'98 - R451.30)	2.6% ('93 – R180.00) ('98 – R744.30)	342
< 1.25 * PL	8.9% ('93 – R264.90) ('98 – R100.70)	40.4% ('93 – R268.00) ('98 – R180.60)	**13.0%** ('93 – R267.00) ('98 – R263.70)	8.2% ('93 – R265.40) ('98 – R324.40)	21.2% ('93 – R267.10) ('98 – R449.30)	8.2% ('93 - R273.70) ('98 – R980.60)	146
< 1.5 * PL	7.7% ('93 – R323.10) ('98 – R94.70)	39.4% ('93 – R325.50) ('98 – R173.00)	10.6% ('93 – R318.30) ('98 – R260.60)	**10.6%** ('93 – R323.40) ('98 – R324.40)	19.7% ('93 – R324.00) ('98 – R439.50)	12.0% ('93 – R332.80) ('98 – R773.90)	142
<2.5 * PL	4.8% ('93 – R422.10) ('98 – R96.00)	19.3% ('93 – R455.20) ('98 – R182.80)	13.7% ('93 – R436.20) ('98 – R263.40)	8.9% ('93 – R441.60) ('98 – R330-.20)	**28.5%** ('93 – R463.30) ('98 – R462.30)	24.8% ('93 – R470.80) ('98 – R960.20)	270
> 2.5 * PL	1.9% ('93 – R1249.60) ('98 – R105.80)	5.7% ('93 – R1078.20) ('98 – R197.90)	7.1% ('93 – R777.80) ('98 – R269.50)	5.2% ('93 – R737.20) ('98 - R333.20)	23.2% ('93 – R840.60) ('98 - R462.30)	**56.9%** (**'93 – R1136.10**) (**'98 – R1346.10**)	211

1998 Scaled Per Capita Expenditure Classes (in 1993 Rand)